



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/075,152	05/08/1998	STEVEN A. MORLEY	QCPA556	3246

23696 7590 03/25/2005

Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

BROWN, RUEBEN M

ART UNIT PAPER NUMBER

2611

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/075,152

Applicant(s)

MORLEY ET AL.

Examiner

Reuben M. Brown

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-14,16-41,43-70,72-82,84-121 and 123-150 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,3-14,16-41,43-70,72-82,84-121 and 123-150 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/15/2004 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-14, 20-21, 46-55, 59-70, 72-82, 87-96, 100-110, 113-121, 123-135 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller, (U.S. Pat # 5,818) hereinafter referred to as W. Fuller, in view of Guido (U.S. Pat # 5,924,013) & Fuller, (U.S. Pat # 6,711,622), hereinafter referred to as M. Fuller.

Considering amended claim 1, the claimed apparatus for distribution of image, comprising:

'means for distributing the stored image and audio files to a plurality of auditoriums and means for receiving the image and audio files in each auditorium reads on the combination of Guido & W. Fuller. Guido is specifically dedicated to teaching transmission and delivery of movie(s) material to a cinema building, for instance using a satellite system 20. These movies are then stored in a digital storage unit 42 before redistribution to at least one auditorium to be displayed by projector 44, (see Fig. 1 & 3; col. 4, lines 1-65 & col. 5, lines 1-35). Even though Guido discusses that the movies are delivered to a cinema, the reference only specifically shows one movie theater 6, with one or more associated projectors 44, see Fig. 1; col. 4, lines 54-66. However, W. Fuller is directed to local distribution of program material within a hospitality environment such as a hotel, and it is clear that the technology is also applicable for general local distribution facilities, (Fig. 2, Fig. 4 & Fig. 6; col. 9, lines 28-66 & col. 10, lines 11-50). It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Guido to operate according to W. Fuller distributing the program material to a plurality of movie theaters 6 within the same building, at least for the desirable benefit of servicing multiple different audiences simultaneously with the same or different movie, as is the teaching of W. Fuller.

'means for receiving and storing in a central storage system compressed image or audio files associated with at least one image program is met by the discussion of W. Fuller, which discloses a system that receives MPEG program material using an IRD 200 over satellite system 106. This program material is subsequently stored in a server 202 for distribution to a plurality of

Art Unit: 2611

room terminals 208, (see Fig. 2, Fig. 4 & Fig. 6; col. 9, lines 28-66 & col. 10, lines 11-50). As for the further claimed feature that the program data is delivered at least one preselected time, W. Fuller teaches that the program material relates to video-on-demand and pay-per-view which is broadcast at pre-scheduled times, see col. 10, lines 50-66. Guido also teaches that the movies transmitted from the central site to the motion picture theater 6 may be transmitted at an appropriate time, i.e., pre-selected time, see col. 5, lines 61-67.

Moreover, Guido teaches that the video images may be transmitted in MPEG compression, using a scrambling, i.e., encryption in order to ensure that only the appropriate movie theater 6 receives the movie that has been ordered from the central site, col. 4, lines 54-67 thru col. 5, lines 1- 32.

Regarding the further claimed feature independently receiving audio files and associated video files, Guido & W. Fuller do not discuss such a technique. However, M. Fuller teaches transmission of movie(s) such that that the image and associated audio data are transmitted separately, (see col. 3, lines 10-16; col. 5, lines 35-67 & col. 9, lines 1-45). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the combination of Guido & M. Fuller, with the feature of separately transmitting and receiving audio & associate video files, at least for the advantage of independently changing the transmission rate of the audio and video files, in order to overcome congestion in the system (col. 10, lines 1-27). In particular, M. Fuller teaches that in order to overcome congestion the

Art Unit: 2611

transmission rate of the video may be decreased, thereby ensuring the audio has priority and is thus delivered without delay.

‘means for independently decrypting and decompressing the image and audio files in each auditorium’, is also met by the combination of references. Specifically W. Fuller teaches that all of the features of the decoding/decompression technology (i.e., MPEG decoder card) may be located at each terminal 208, instead of being centrally located at the server 202, see col. 5, lines 51-67; col. 7, lines 39-45 & col. 28, lines 42-47.

‘at least one projection system and sound system in each auditorium for receiving the decrypted and decompressed image files and audio files, respectively, presenting the image and audio information in synchronization’ is met by the projector 44 and audio system 56, see Guido (Fig. 1- 3; col. 4, lines 1-35; col. 5, lines 34-60 & col. 6, lines 21-60.

Considering claims 3 & 72, Guido, W. Fuller & M. Fuller teach the use of MPEG, which supports the claimed separate non-contiguous storage of associated image and audio files.

Considering claims 4-6 & 73-75, M. Fuller teaches variable compression and transmission of audio & video files, that are remotely compressed, (col. 5, lines 55-67; col. 6, lines 17-38; col. 9, lines 14-30; col. 10, lines 5-26).

Art Unit: 2611

Considering claims 7 & 76, the associated audio & video streams in M. Fuller, necessarily include an identifier to synchronize the programs.

Considering claims 8 & 77, the claimed subject matter reads on the disclosure in M. fuller that the server may store multiple versions of the same audio program, col. 9, lines 1-45.

Considering claims 9-10 & 78-79, the subject matter reads on M. Fuller, col. 5, lines 35-58.

Considering claims 11 & 80, M. Fuller teaches real-time streaming of programs.

Considering claim 12, Official Notice is taken that at the time the invention was made, telecine devices were known in th art. It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Guido with the known telecine technology, at least in order to provide the aesthetics of a movie reel.

Considering claims 13 & 81, see M. Fuller col. 5, lines 35-58, which teach a Sun Microsystems computerized workstation.

Considering claims 14 & 82, the claimed subject matter reads on the combination of Guido & W. Fuller.

Art Unit: 2611

Considering claims 20-21 & 87-88, Official Notice is taken that placing watermarks in video images was very well known in the art at the time the invention was made. It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Guido, to include watermarking at least for the desirable advantage of additional security measures.

Considering claim 89, Guido teaches the use a satellite to transfer audio/video to movie theaters 6.

Considering claims 90, Guido & W. Fuller meets the claimed subject matter.

Considering claims 91-92, M. Fuller teaches the different compression rates, col. 5, lines 59-67 & col. 6, lines 31-40.

Considering claims 93 & 95 Official Notice is taken that numerous error detection algorithms, such as adding a checksum to transmitted data, and allowing adjustments in transfer characteristics was old in the art at the time the invention was made. It would have been obvious for of ordinary skill in the art at the time the invention was made, to operate Guido in manner wherein checksum technology and adjusting terminal parameters were used, in order to ensure video data is correctly received by the receiving system.

Art Unit: 2611

Considering claim 94, Guido discloses the use of satellites in order to transmit video data, see Fig. 1.

Considering claim 96, both Guido & W. Fuller disclose a two-way system.

Considering claim 98-99, Guido does not teach the well-known flow control technique of request for re-transmission of data due to errors. However, Official Notice is taken that request-retransmission was very well known in the art at the time the invention was made. It would have been obvious for of ordinary skill in the art at the time the invention was made, to operate Guido in a manner utilizing the request retransmission technique, at least for the known benefits of an efficient protocol for ensuring the receiver only decodes image data above a certain threshold.

Considering claims 100-102, the claimed subject matter reads on the communication network 50 of Guido, Fig. 1 & col. 4, lines 36-38 & col. 4, lines 65-67.

Considering claim 103, Guido teaches the use of MPEG data, which reads on packet type data.

Considering claim 104, Guido teaches that the two-way link may utilize the Internet, col. 4, lines 46-54 & Fig. 1.

Art Unit: 2611

Considering claims 105-106, Guido only explicitly discloses that the satellite system delivers video data to the subscriber. Official Notice is taken that at the time the invention was made, two-way satellite systems were well known in the art. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Guido to deliver upstream traffic over a satellite system, at least for the advantage of a higher bandwidth channel that the return data from subscribers at a higher speed.

Considering claims 107-109, the claimed network management system that present images at authorized times and provides operational control of the auditoriums, reads on the operation of central site 2, which controls the distribution of video data to a plurality of movie theaters 6, col. 4, lines 46-53.

Considering claims 43 & 110, Guido teaches that the auditoriums may order movies to be delivered at selectable broadcast times, col. 4, lines 41-45.

Considering claims 46-47 & 113-114, as for the claimed feature of simultaneously or staggering the time of delivery to some of the cinema halls, Official Notice is taken that at the time the invention was made, it was well known to provide video information to a plurality of destinations according to a schedule. It would have been obvious for of ordinary skill in the art at the time the invention was made, to modify Guido to transmit video data to a plurality of different auditoriums within a cinema hall, according to a schedule at least for the desirable improvement of a more flexible system.

Art Unit: 2611

Considering claims 48-50 & 115-116, the claimed subject reads on the combination of Guido, which teaches transmission of video data to at least one movie theater and W. Fuller, which teaches a central storage system within a particular local system. W. Fuller shows a disk array 610, within the video server 202, see Fig. 6.

Considering claims 51-52 & 117-118, even though W. Fuller discloses the use of a disk array 610 to store movie data, striping is not specifically taught. Nevertheless, Official Notice is taken that at the time the invention was made, striping was old in the art. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to utilize striping, at least for the improvement of increased efficiency in off-loading.

Considering claims 53 & 119, W. Fuller teaches monitoring the movies ordered by subscribers, at least for billing purposes, col. 10, lines 59-67.

Considering claims 54-55, 59-60 & 120-121 & 123-125, W. Fuller is directed to distribution of video data in a local environment, col. 9, lines 28-65; col. 10, lines 11-50. Furthermore, W. Fuller teaches that the video content may be delivered according to a schedule, which reads on 'programmable control'. The combination of auditorium(s) within a movie theater site as discussed in Guido, with the local distribution of W. Fuller reads on the claims.

Art Unit: 2611

Considering claims 61 & 126, the claimed subject reads on the use of MPEG, which is taught by Guido & W. Fuller.

Considering claims 62-63 & 127-128, W. Fuller teaches the optional use of fiber optic technology, col. 9, lines 61-63.

Considering claim 64, both Guido and W. Fuller teach satellite transmission.

Considering claims 65 & 129, Guido teaches that movies may be distributed on a transportable medium, col. 1, lines 15-40.

Considering claims 66-67 & 130-131, Official Notice is taken that at the time the invention was made, it was well known in the art store and transport video data on optical and magnetic media, It would have been obvious for one of ordinary skill in the art at the time the invention was made, to store and transport video data on magnetic or optical media, at least for the benefit of a higher storage capacity than tape, which is discussed in Guido.

Considering claims 68 & 132-133, the claimed archiving medium reads on the video server 202, in W. Fuller.

Art Unit: 2611

Considering claim 70, the amended claimed method or distribution of image and audio information to viewing locations, comprise method steps that correspond directly with subject matter mentioned above in the rejection of claim 1, and is likewise treated.

4. Claims 16-18, 44, 84-86 & 111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guido, in view of W. Fuller & M. Fuller, further in view of Banker, (U.S. Pat # 6,005938).

Considering claims 16-17, 30, 44-45, 84 & 111 Guido, while teaching scrambling, does not teach receiving encrypted data a separate time from the audio/video. Nevertheless, Banker discloses transmitting a session key at a time separate from the encrypted information, col. 1, lines 37-67. It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Guido with the feature of transmitting decryption or cryptographic key information at a separate time from the audio/video information, as taught by Banker, at least to ensure that the information is at least received before the actual encrypted data.

As for claim 44, even though Banker teaches decryption, the above references do not specifically teach providing a decoder/decrypter for each image projection system within the system. It would have been obvious and one of ordinary skill in the art at the time the invention was made, would have been motivated to modify Guido to provide a decrypter for each image

Art Unit: 2611

projection system, at least for the desirable advantage of a more distributed system that reduces bottlenecks, since it would not be required to decrypt all of the video data at a central location.

Considering claims 18 & 85, Banker teaches that the system includes a time interval for the use of the session key, which avoids the receiver having indefinite access to encrypted data, see col. 2, lines 24-665 & col. 3, lines 5-30 & col. 4, lines 40-58

Considering claims 19 & 86, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the combination of Guido & Banker to overwrite invalid decryption key information for the desirable advantage of re-using its memory, thereby conserving storage capacity at the receiver.

5. Claims 45 & 112, is rejected under 35 U.S.C. 103(a) as being unpatentable over Guido in view of W. Fuller & M. Fuller and Banker according to claim 44 and further in view of Gulla (WO # 97/06637).

Considering claims 45 & 112, the Guido does not discuss any intrusion detection algorithm. Nevertheless Gulla, which is in the same field of endeavor of movie distributed to remote cinema halls, teaches protection the recording apparatus with an intrusion detection means that includes a self-destruction of the memory content, when an intrusion is detected, page 13, lines 6-13. It would have been obvious for one of ordinary skill in the art at the time the

Art Unit: 2611

invention was made, to modify Guido with the technique of detecting intrusion and destroying data upon an intrusion as taught by Gulla, for the desirable improvement of ensuring the movie data will only be accessed by authorized users of the instant movie data.

6. Claims 22-41 & 135-150 are rejected under 35 U.S.C. 103(a) as being unpatentable over W. Fuller, in view of Guido & Banker.

Considering claims 136 & 143, the claimed apparatus and method for distribution of digitized image to viewing locations, comprising:

‘a central facility for receiving and storing digitized audio & video data’, is met by the video server 202, see Fig. 4 & Fig. 6; col. 11, lines 65-67 thru col. 12, lines 1-11.

As for the claimed ‘means for encrypting, compressing and transferring the encrypted compressed audio & video data to a plurality of auditoriums, W. Fuller teaches compression but not encryption. Nevertheless, Banker teaches using cryptography in the transmission of video data, (col. 1, lines 37-67). It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify W. Fuller to use encryption as taught by Banker, at least to ensure the reception of programming only by authorized subscribers.

Art Unit: 2611

Regarding the claimed “plurality of auditoriums”, W. Fuller does not discuss auditorium. However, Guido teaches the distribution of movie to theaters to be displayed to an audience, (Fig. 1).. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify W. Fuller to transmit the video data to a cinema, as shown by Guido, at least in order to prove the movie to a wider range of people simultaneously.

The claimed feature of pre-selected times reads on the disclosure of W. Fuller of a subscriber selecting movies from a schedule of times, col. 10, lines 52-53.

Considering claim 22, W. Fuller teaches transmission of data over a satellite connection to the video server, but does discuss wireless distribution within the site, even though Ethernet LAN technology is taught. Official Notice is taken that wireless LAN technology was known in the art at the time the invention was made. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to operate W. Fuller using a wireless LAN technique, at least for the known benefit of a more portable system.

Considering claims 23, W. Fuller meets the claimed subject matter.

Considering claims 24-25, MPEG may be compressed at different rates.

Considering claims 26, 28, 93 & 95 Official Notice is taken that numerous error detection algorithms, such as adding a checksum to transmitted data, and allowing adjustments in transfer

Art Unit: 2611

characteristics was old in the art at the time the invention was made. It would have been obvious for of ordinary skill in the art at the time the invention was made, to operate W. Fuller in manner wherein checksum technology and adjusting terminal parameters were used, in order to ensure video data is correctly received by the receiving system.

Considering claim 27, W. Fuller discloses the use of satellites in order to transmit video data, see Fig. 1.

Considering claim 29, W. Fuller discloses a two-way system.

Considering claim 30, while teaching scrambling, does not teach receiving encrypted data a separate time from the audio/video. Nevertheless, Banker discloses transmitting a session key at a time separate from the encrypted information, col. 1, lines 37-67. It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify W. Fuller with the feature of transmitting decryption or cryptographic key information at a separate time from the audio/video information, as taught by Banker, at least to ensure that the information is at least received before the actual encrypted data.

Considering claim 31-32, W. Fuller does not teach the well-known flow control technique of request for re-transmission of data due to errors. However, Official Notice is taken that request-retransmission was very well known in the art at the time the invention was made. It

Art Unit: 2611

would have been obvious for of ordinary skill in the art at the time the invention was made, to operate W. Fuller in a manner utilizing the request retransmission technique, at least for the known benefits of an efficient protocol for ensuring the receiver only decodes image data above a certain threshold.

Considering claims 33-35, the claimed subject matter reads on the system control computer 206 and video server 202, see Fig. 2 & Fig. 4 of W. Fuller.

Considering claims 36, W. Fuller teaches the use of MPEG data, which reads on packet type data.

Considering claim 37, Guido teaches that the two-way link may utilize the Internet, col. 4, lines 46-54 & Fig. 1.

Considering claims 38-39, W. Fuller & Guido only explicitly disclose that the satellite system delivers video data to the subscriber. Official Notice is taken that at the time the invention was made, two-way satellite systems were well known in the art. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify W. Fuller to deliver upstream traffic over a satellite system, at least for the advantage of a higher bandwidth channel that the return data from subscribers at a higher speed.

Art Unit: 2611

Considering claims 40-41, the claimed network management system that present images at authorized times and provides operational control of the auditoriums, reads on the operation of central site 2, which controls the distribution of video data to a plurality of movie theaters 6, col. 4, lines 46-53, in Guido.

Considering claim 135, the claimed redundancy reads on the disk array 610 of W. Fuller.

Considering claims 137 & 144, Guido, while teaching scrambling, does not teach receiving encrypted data a separate time from the audio/video. Nevertheless, Banker discloses transmitting a session key at a time separate from the encrypted information, col. 1, lines 37-67. It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify W. Fuller with the feature of transmitting decryption or cryptographic key information at a separate time from the audio/video information, as taught by Banker, at least to ensure that the information is at least received before the actual encrypted data.

Considering claims 138-139 & 145-147, Banker teaches that the system includes a time interval for use of the session key, which avoids the receiver having indefinite access to encrypted data, see col. 2, lines 24-665 & col. 3, lines 5-30 & col. 4, lines 40-58

Considering claim 140, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the combination of W. Fuller & Banker to overwrite

Art Unit: 2611

invalid decryption key information for the desirable advantage of re-using its memory, thereby conserving storage capacity at the receiver.

Considering claim 148, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the combination of Guido & Banker to overwrite invalid decryption key information for the desirable advantage of re-using its memory, thereby conserving storage capacity at the receiver.

Considering claims 149-150, Official Notice is taken that watermarking was known in the art at the time the invention was made. It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify W. Fuller to use watermarking and the time of presentation of the watermarking, as an additional security feature.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- A) Ruybal Teaches transmission of video data to a plurality of cinema halls.
- B) Kimoto Theater reproduction system.
- C) Haigh Transmission of audio & video data to be compressed at the receiver.

Art Unit: 2611

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for formal communications intended for entry)

Or:

(703) 746-6861 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

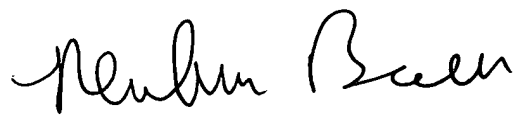
*Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).*

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Reuben M. Brown whose telephone number is (703) 305-2399.
The examiner can normally be reached on M-F (8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Christopher Grant can be reached on (703) 305-4755. The fax phone numbers for the
organization where this application or proceeding is assigned is (703) 872-9306 for regular
communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the receptionist whose telephone number is (703) 305-4700.

Reuben M. Brown


REUBEN M. BROWN
PATENT EXAMINER